Application No.: 10/702,459

Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (Currently Amended): A method of the production of a nanoparticle which comprises a step of forming a nanoparticle including a compound hydroxide of a metal ion in a cavity part of a protein, in a solution containing the protein having the cavity part therein, said metal ion, and a carbonate ion and/or a hydrogen carbonate ion,

wherein said metal ion is any one of a nickel ion (Ni²⁺), a chromium ion (Cr²⁺) or a copper ion (Cu²⁺), and

said solution comprises a carbonate ion and/or a hydrogen carbonate ion produced by bubbling carbon dioxide thereto by mixing a first solution and a second solution, wherein said first solution contains a protein having a cavity part inside, an alkaline buffer solution, and a metal ion selected from the group consisting of a nickel ion (Ni²⁺), a chromium ion (Cr²⁺) and a copper ion (Cu²⁺), and said second solution contains carbonate ion and/or hydrogen carbonate ion.

- 2 (Canceled)
- 3 (Canceled)
- 4 (Previously Presented): The method of the production of a nanoparticle according to claim 1, wherein said metal ion is a nickel ion.
- 5 (Previously Presented): The method of the production of a nanoparticle according to claim 1, wherein said metal ion is a chromium ion.

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6 (Previously Presented): The method of the production of a nanoparticle according to claim 1, wherein said metal ion is a copper ion.

7 (Currently Amended): The method of the production of a nanoparticle according to claim [[2]] 1, wherein pH of said a solution after mixing is approximately equal to a precipitation point of a hydroxide of said metal ion.

8 (Currently Amended): The method of the production of a nanoparticle according to claim [[4]] 1, wherein pH of said solution after mixing is 8 or greater and 9 or less.

9 (Currently Amended): The method of the production of a nanoparticle according to claim [[4]] 1, wherein said solution further comprises an ammonium ion a third solution containing an ammonium ion is further mixed at said step.

10 (Currently Amended): The method of the production of a nanoparticle according to claim 9, wherein pH of said solution after mixing is greater than 8.3 and equal to or less than 8.65.

11 (Original): The method of the production of a nanoparticle according to claim 1, wherein said protein is at least one of apoferritin, Dps protein, CCMV protein, TMV protein or a heat shock protein.

12 (Canceled)

13 (Currently Amended): The method of the production of a nanoparticle according to claim 1, further comprise comprising a step of eliminating the protein by a heat treatment after forming said nanoparticle.

14 (Canceled)

15 (Canceled)

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16 (New): The method of production of a nanoparticle according to claim 1, wherein said second solution comprises carbonate ion and/or a hydrogen carbonate ion produced by bubbling carbon dioxide thereto.